REMARKS

Claims 1, 2, 4-10 and 12-18 are pending in this application. By this Amendment, claims 1 and 10 are amended, claim 3 is made independent by canceling claim 3 and adding claim 17, claim 11 is canceled, and claim 18 is added. Claim 1 is amended to address the teachings of the references cited in the Office Action.

No new matter is added to the application by this Amendment. The amendment to claim 1 to recite the step of forming the seat belt webbing into a seat belt is found in the original specification at, for example, paragraphs [0018] and [0024]. New claim 17 is supported in original claims 1 and 3, as originally filed, and in the original specification at, for example, paragraphs [0018] and [0024]. New claim 18 is supported in the original specification at, for example, paragraphs [0006], [0010], [0017], [0021] and [0025].

Applicants appreciate the courtesies shown to Applicants' representative by Examiners Khan and Douyon in the December 19, 2007 interview. Applicants' separate record of the substance of the interview is incorporated into the following remarks.

Reconsideration of the application is respectfully requested.

I. Rejection Under 35 U.S.C. §112

Claim 3 was rejected under 35 U.S.C. §112, second paragraph, as allegedly failing to provide sufficient antecedent basis for the feature "followed by a thermofixing step" because claim 1 recites "consisting of" language.

Claim 3 has been canceled in favor of new claim 17. New claim 17 is directed to a method for production of a seat belt and incorporates the features of claims 1 and 3. Therefore, the rejection is moot with respect to claim 3.

Thus, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. §112, second paragraph.

II. Rejection Under 35 U.S.C. §102(b)

Claims 1, 2 and 9 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by JP 01306647 (JP '647). The rejection is respectfully traversed.

The Patent Office alleges that JP '647 teaches all of the features recited in claim 1. Applicants respectfully disagree.

Contrary to the assertions by the Patent Office, JP '647 does not teach or suggest a process for the production of a seat belt or a process for preparing seat belt webbing for use in making the seat belt. Instead, JP '647 teaches a method for producing a pile cloth, which is a textile material that cannot be used for technical yarn applications such as the production of seat belt webbing and seat belts.

The word "cloth" as used with respect to pile cloths in JP '647 refers to a textile material. In the textile assembly industry, the words "textile," "fabric" and "cloth" are defined differently. Textile refers to any material made of interlacing fibers. Fabric refers to any material made through weaving, knitting, crocheting or bonding. Cloth refers to a finished piece of fabric that can be used for a purpose such as covering a bed and the like. See Wikipedia.com's definition of textile, available at http://en.wikipedia.org/wiki/Textile, attached hereto.

The term "pile cloth," when used in the textile assembly industry as in JP '647, is even more remote from seat belt webbing as shown in FIG. 1 of JP '647. In FIG. 1, piles of yarn A-D protrude out from a base fabric 1 to render a pile cloth having a high quality appearance.

JP '647 thus clearly describes a decorative cloth, not a material suitable for use in a technical application as in seat belt webbing. Additional teachings of JP '647 confirm that the pile cloth therein is not suitable for use as a seat belt webbing or a seat belt.

First, JP '647 teaches that the pile cloth has a filament count (linear density) of about 75 denier, which is common for textile yarns applications. See application and comparative

examples on page 8 of English language translation of JP '647. On the other hand, a seat belt typically has a filament count (linear density) between about 500 to about 1500 denier, which is more than six times the filament count taught in JP '647. See claims 8 and 15 of the present application. The low denier pile cloth of JP '647 would not have been found suitable for use as seat belt webbing for use in making a seat belt by one of ordinary skill in the art.

Second, JP '647 teaches that copolyester yarns, such as cationic dyeable 5-sodium-sulfoisophthalate, are provided to make the pile cloth. Use of cationic dyeable 5-sodium-sulfoisophthalate in the pile cloth of JP '647 reduces the tensile strength of the pile cloth, and would be recognized as undesired for technical yarn applications, such as seat belt webbing used in making seat belts.

Despite the above, the Patent Office alleges that JP '647 indicates possible utility of the material as a seat belt by describing that the pile cloth could be used as interior trim of automobiles and for car seats. However, this description indicates only that the pile cloth could be used for upholstery applications, and does not in any way indicate or suggest use in technical applications such as for seat belts requiring high strength. Additionally, FIG. 1 of JP '647 is a typical illustration for a pile cloth used as upholstery cloth instead of a pile cloth used to in a seat belt.

During the interview, the Examiners acknowledged that JP '647 failed to teach or suggest treatment of a material used in forming a seat belt and/or treatment of a seat belt, as recited in present claim 1. Amended claim 1 is thus distinguished over the teachings of JP '647.

Finally, as discussed in the present specification at paragraph [0010], treatment of the seat belt webbing in a water-bath containing at least one disperse dye results in a webbing in which the at least one disperse dye penetrates a surface of the webbing, thereby increasing retraction behavior of the seat belt. This unexpected benefit is recited in new dependent

claim 18. Not only does JP '647 fail to teach or suggest a method for production of a seat belt as in claim 1, JP '647 also fails to teach or suggest this unexpected benefit achieved by the claimed process.

In view of the foregoing, JP '647 fails to disclose each and every limitation of independent claim 1 and thus cannot anticipate claim 1. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

II. Rejections Under 35 U.S.C. §103(a)

A. JP '647 in view of Langstaff

Claim 3 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over JP '647 in view of U.S. Patent No. 3,414,957 (Langstaff).

New claim 17 incorporates the features of amended claim 1 and canceled claim 3. Neither JP '647 nor Langstaff teach or suggest a method for production of seat belt including the steps of forming a seat belt webbing by weaving at least two synthetic yarns of different colors, wherein at least one yarn is spun-dyed, subsequently subjecting the seat belt webbing to treatment in a water-bath containing at least one disperse dye, and forming a seat belt from the seat belt webbing. Langstaff thus fails to remedy the deficiencies of JP '647 as detailed above.

Further, Langstaff also fails to teach or suggest the further step of following the treatment in the water-bath containing at least one disperse dye with a thermofixing step in the above process, as required in claim 17.

For the foregoing reasons, reconsideration and withdrawal of this rejection are respectfully requested.

B. JP '647 in view of Van Leeuwen

Claims 4-8 and 10-16 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over JP '647 in view of U.S. Patent No. 4,473,617 (Van Leeuwen). This rejection is respectfully traversed.

Contrary to the Patent Office's allegations, Van Leeuwen does not disclose materials that are similar to the materials of JP '647 because Van Leeuwen teaches an application of multifilament bicomponent yarns that are spun-dyed in such a way that the pigments are substantially only present in the core of the bicomponent yarn. Additionally, Van Leeuwen teaches that the bicomponent yarn has a filament count of about 300 to about 5000 dtex (which equals about 270 to about 4500 denier), which is completely outside the ranges taught by JP '647.

The teachings of Van Leeuwen are directed to a bicomponent yarn that one would not have been combined with the yarns of JP '647 to form the pile cloth of JP '647 because the yarns of Van Leeuwen are fundamentally different from the yarns of JP '647. The yarns of Van Leeuwen are fundamentally different from the yarns of JP '647 in that (1) the yarns of Van Leeuwen have a filament count of about 300 to 5000 dtex while the yarns of JP '647 have a filament count of about 75 denier and (2) the yarns of Van Leeuwen are used for safety belts, ropes and nets while the yarns of JP '647 are used for upholstery textile manufacturing, such as cloth for car seats. The yarns of JP '647 cannot be modified with the teachings of Van Leeuwen to achieve the process for making a seat belt of claim 1 because the upholstery textile yarns of JP '647 are not the same as or substantially similar to the multifilament bicomponent yarns of Van Leeuwen. One of ordinary skill in the art thus would not have been led to have combined the teachings of Van Leeuwen with the teachings of JP '647 to achieve the method recited in claim 1 for the foregoing reasons.

Thus, Van Leeuwen fails to remedy the deficiencies of JP '647 as described above with respect to claim 1.

Accordingly, reconsideration and withdrawal of the rejection of claims 4-8, 10 and 12-16 under 35 U.S.C. §103(a) are respectfully requested.

C. JP '647 in view of GB '327

Claims 4-8 and 10-16 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over JP '647 in view of GB 2,040,327 ("GB '327"). This rejection is respectfully traversed.

GB '327 is directed to yarns for use in seat belt webbing having a tensile strength of 50/90 cN/tex. One of ordinary skill in the art would not have combined the GB '327 yarns with the yarns of JP '647 to form the pile cloth of JP '647 because the yarns of GB '327 are fundamentally different from the yarns of JP '647, for example because the yarns of GB '327 are used for brightly color-patterned safety belts while the yarns of JP '647 are used for upholstery textile manufacturing, such as cloth for car seats. Neither JP '647 nor GB '327 provide any reason for one to have used the treatment described for the upholstery pile cloth of JP '647 with the very different webbing of GB '327, the materials and uses of the cloth of JP '647 and webbing of GB '327 being very different as detailed above. Thus, one of ordinary skill in the art would not have been led to have combined the references in the manner alleged in the Office Action at all, much less with any reasonable expectation of success.

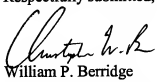
Accordingly, reconsideration and withdrawal of the rejection of claims 4-8, 10 and 11-16 under 35 U.S.C. §103(a) are respectfully requested.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1, 2, 4-10 and 12-18 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:
Printout of http://en.wikipedia.org/wiki/Textile

Date: January 31, 2008

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Textile

From Wikipedia, the free encyclopedia

A **textile** is a flexible material comprised of a network of natural or artificial fibers often referred to as thread or yarn. Yarn is produced by spinning raw wool fibers, linen, cotton, or other material on a spinning wheel to produce long strands known as yarn.[1] Textiles are formed by weaving, knitting, crocheting, knotting, or pressing fibers together (felt).

Sunday textile market on the sidewalks of Karachi, Pakistan.

Contents

Terminology

The words *fabric* and *cloth* are commonly used in textile assembly trades (such as tailoring and dressmaking) as synonyms for *textile*. However, there are subtle differences in these terms. *Textile* refers to any material made of interlacing fibres. *Fabric* refers to any material made through weaving, knitting, crocheting, or bonding. *Cloth* refers to a finished piece of fabric that can be used for a purpose such as covering a bed.

History

Late antique textile, Egyptian, now in the Dumbarton Oaks

The production of textiles is an important craft, whose speed and scale of production has been altered almost beyond recognition by industrialization and the introduction of modern manufacturing techniques. However, for the main types of textiles, plain weave, twill or satin weave there is little difference between the ancient and modern methods.

Incan Indians have been crafting quipus (or *khipus*) made of fibers either from a protein, such as spun and plied thread like wool or hair from camelids such as alpacas, llamas and camels or from a cellulose like cotton for thousands of years. Khipus are a series of knots along pieces of string. They have been believed to only have acted as a form of accounting, although new evidence conducted by Harvard professor, Gary Urton, indicates there may be more to the khipu than just numbers. Preservation of khipus found in

collection.

museum and archive collections follow general textile preservation principles and practice.

Uses

Textiles have an assortment of uses, the most common of which are for clothing and containers such as bags and baskets. In the household, they are used in carpeting, upholstered furnishings, window shades, towels, covering for tables, beds, and other flat surfaces, and in art. In the workplace, they are used in industrial and scientific processes such as filtering. Miscellaneous uses include flags,backpack, tents, nets, cleaning devices, such as handkerchiefs; transportation devices such as balloons, kites, sails, and parachutes; strengthening in composite materials such as fibre glass and industrial geotextiles, and smaller cloths are used in washing by "soaping up" the cloth and washing with it rather than using just soap.

Textiles used for industrial purposes, and chosen for characteristics other than their appearance, are commonly referred to as *technical textiles.* Technical textiles include textile structures for automotive applications, medical textiles (e.g. implants), geotextiles (reinforcement of embankments), agrotextiles (textiles for crop protection), protective clothing (e.g. against heat and radiation for fire fighter clothing, against molten metals for welders, stab protection, and bullet proof vests. In all these applications stringent performance requirements must be met.

Fashion and textile designs

Fashion designers commonly rely on textile designs to set their fashion collections apart from others. Marisol Deluna, Nicole Miller, Lilly Pulitzer, the late Gianni Versace and Emilio Pucci can be easily recognized by their signature print driven designs.

Sources and types

Textiles can be made from many materials. These materials come from four main sources: animal, plant, mineral, and synthetic. In the past, all textiles were made from natural fibres, including plant, animal, and mineral sources. In the 20th century, these were supplemented by artificial fibres made from petroleum.

Traditional Romanian fabric

Textiles are made in various strengths and degrees of durability, from the finest gossamer to the sturdiest canvas. The relative thickness of fibres in cloth is measured in deniers. Microfiber refers to fibers made of strands thinner than one denier.

Animal textiles

Animal textiles are commonly made from hair or fur.

Wool refers to the hair of the domestic goat or sheep, which is distinguished from other types of animal hair in that the individual strands are coated with scales and tightly crimped, and the wool as a whole is coated with an oil known as lanolin, which is waterproof and dirtproof. Woollen refers to a bulkier yarn produced from carded, non-parallel fibre, while worsted refers to a finer yarn which is spun from longer fibres which have been combed to be parallel. Wool is commonly used for warm clothing. Cashmere, the hair of the Indian cashmere goat, and mohair, the hair of the North African angora goat, are types of wool known for their softness.

Other animal textiles which are made from hair or fur are alpaca wool, vicuña wool, llama wool, and camel hair,

generally used in the production of coats, jackets, ponchos, blankets, and other warm coverings. Angora refers to the long, thick, soft hair of the angora rabbit.

Wadmal is a coarse cloth made of wool, produced in Scandinavia, mostly 1000~1500CE.

Silk is an animal textile made from the fibers of the cocoon of the Chinese silkworm. This is spun into a smooth, shiny fabric prized for its sleek texture.

Plant textiles

Grass, rush, hemp, and sisal are all used in making rope. In the first two, the entire plant is used for this purpose, while in the last two, only fibres from the plant are utilized. Coir (coconut fiber) is used in making twine, and also in floormats, doormats, brushes, mattresses, floor tiles, and sacking.

Straw and bamboo are both used to make hats. Straw, a dried form of grass, is also used for stuffing, as is kapok.

Fibres from pulpwood trees, cotton, rice, hemp, and nettle are used in making paper.

Cotton, flax, jute, hemp and modal are all used in clothing. Piña (pineapple fiber) and ramie are also fibres used in clothing, generally with a blend of other fabrics such as cotton.

Acetate is used to increase the shininess of certain fabrics such as silks, velvets, and taffetas.

Seaweed is used in the production of textiles. A water-soluble fiber known as alginate is produced and is used as a holding fiber; when the cloth is finished, the alginate is dissolved, leaving an open area

Mineral textiles

Asbestos and basalt fiber are used for vinyl tiles, sheeting, and adhesives, "transite" panels and siding, acoustical ceilings, stage curtains, and fire blankets.

Glass Fiber is used in the production of spacesuits, ironing board and mattress covers, ropes and cables, reinforcement fiber for composite materials, insect netting, flame-retardant and protective fabric, soundproof, fireproof, and insulating fibers.

Metal fiber, metal foil, and metal wire have a variety of uses, including the production of cloth-of-gold and jewelry. Hardware cloth is a coarse weave of steel wire, used in construction.

Synthetic textiles

All synthetic textiles are used primarily in the production of clothing.

Polyester fiber is used in all types of clothing, either alone or blended with fibres such as cotton.

Aramid fiber (e.g. Twaron) is used for flame-retardant clothing, cut-protection, and armor.

Acrylic is a fibre used to imitate wools, including cashmere, and is often used in replacement of them.

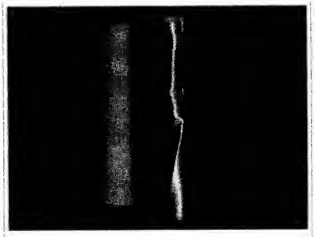
Nylon is a fibre used to imitate silk; it is used in the production of pantyhose. Thicker nylon fibers are used in rope and outdoor clothing.

Spandex (trade name *Lycra*) is a polyurethane fibre that stretches easily and can be made tight-fitting without impeding movement. It is used to make activewear, bras, and swimsuits.

Olefin fiber is a fiber used in activewear, linings, and warm clothing. Olefins are hydrophobic, allowing them to dry quickly. A sintered felt of olefin fibers is sold under the trade name Tyvek.

Ingeo is a polylactide fiber blended with other fibres such as cotton and used in clothing. It is more hydrophilic than most other synthetics, allowing it to wick away perspiration.

Lurex is a metallic fiber used in clothing embellishment.



A variety of contemporary fabrics. From the left: evenweave cotton, velvet, printed cotton, calico, felt, satin, silk, hessian, polycotton.

Production methods

Weaving is a textile production method which involves interlacing a set of longer threads (called the warp) with a set of crossing threads (called the weft). This is done on a frame or machine known as a loom, of which there are a number of types. Some weaving is still done by hand, but the vast majority is mechanised.

Knitting and crocheting involve interlacing loops of yarn, which are formed either on a knitting needle or on a crochet hook, together in a line. The two processes are different in that knitting has several active loops at one time, on the knitting needle waiting to interlock with another loop, while crocheting never has more than one active loop on the needle.

Braiding or plaiting involves twisting threads together into cloth. Knotting involves tying threads together and is used in making macrame.

Brilliantly dyed traditional woven textiles of Guatemala, and woman weaving on a backstrap loom.

Lace is made by interlocking threads together independently, using a backing and any of the methods described above, to create a fine fabric with open holes in the work. Lace can be made by either hand or machine.

Carpets, rugs, velvet, velour, and velveteen, are made by interlacing a secondary yarn through woven cloth, creating a tufted layer known as a nap or pile.

Felting involves pressing a mat of fibers together, and working them together until they become tangled. A liquid, such as soapy water, is usually added to lubricate the fibers, and to open up the microscopic scales on strands of wool.

Treatments

Textiles are often dyed, with fabrics available in almost every colour. Coloured designs in textiles can be created by weaving together fibres of different colours (tartan or Uzbek Ikat), adding coloured stitches to finished fabric (embroidery), creating patterns by resist

Woven tartan of Clan Campbell, Scotland.

dyeing methods, tying off areas of cloth and dyeing the rest (tie-dye), or drawing wax designs on cloth and dyeing in between them (batik), or using various printing processes on finished fabric. Woodblock printing, still used in India and elsewhere today, is the oldest of these dating back to at least 220CE in China.

Textiles are also sometimes bleached. In this process, the original colour of the textile is removed by chemicals or exposure to sunlight, turning the textile pale or white.

Textiles are sometimes finished by starching, which makes the fabric stiff and less prone to wrinkles, or by waterproofing, which makes the fabric slick and impervious to water or other liquids. Since the 1990s, finishing agents have been used to strengthen fabrics and make them wrinkle free. [1] (http://ask.yahoo.com/ask/20010315.html)

See also

- Textile preservation
- Textile manufacturing
- Textile manufacturing terminology
- Timeline of clothing and textiles technology
- Textile printing
- Quipu

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External links

- Global Textile and Clothing Trade (http://www.emergingtextiles.com/) Textile and Clothing Information and Reporting.
- The Museum of International Folk Art (http://www.moifa.org/)
- Weaving document archive (http://www.cs.arizona.edu/patterns/weaving/weavedocs.html)
- union of textile industries (http://www.textile.fr:81/site/home_en.asp)
- Textiles Nanotechnology Laboratory (http://people.cornell.edu/pages/jh433/) at Cornell University
- Compact informations about materials (http://www.matlexikon.de/) German textile site.
- Textile Technology - Textile Machinery, News and Directory (http://www.textile-technology.com/)
- Tex.in - Textile & Apparel Directory & WWW Database (http://www.tex.in/)

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